

The Powergrid<sup>M</sup> design utilizes the latest advancements in power management technologies to dramatically enhance operational flexibility and performance to include advanced computer controlled inverters, Auto Sensing/Switching, AC/DC Input Power, advanced LIP battery technology, SNMP status monitoring, Load Balancing and Intelligent Synchronized Stacking.

# Plug-&-Play BackPlane Design



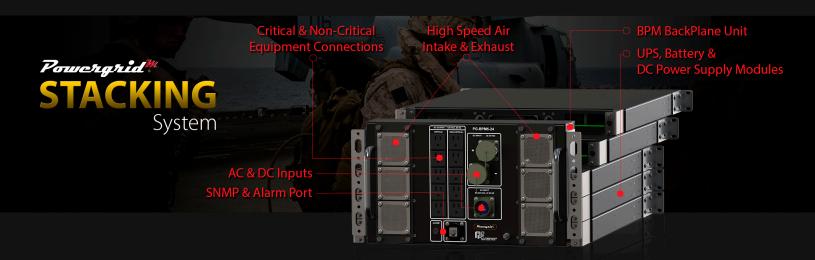
## Shelter / Vehicle Modular Design

The Powergrid<sup>M</sup> BackPlane Stacking System (BPM) has been specifically developed to address a wide variety of technical and operational challenges normally found in portable shelter and vehicle based C3 systems and environments. Powergrid<sup>M</sup> is a modular design based on a common set of power components that can be configured to meet nearly any mobile or deployable operational requirement.



## Modular BackPlane Stacking System

To provide a highly flexible and robust method for establishing an intelligent and integrated power management system within the space limited confines of shelter and vehicle based platforms, the Powergrid<sup>M</sup> Plug-&-Play UPS BackPlane Module (BPM) is configured to consolidate all of the Input / Output power, alarm, and network connections facilitating the creation of an Integrated Power Management System (IPMS).





### **Consolidated Power**

The Powergrid<sup>M</sup> BackPlane Stacking System provides a complete mobile power solution is a single Rackmount footprint. This system is extremely small but packs a major punch with up to 6000 watts in only 5U of rack space. This system will provide clean controlled AC and DC power and full battery support from any vehicle, generator, or shore power source.



### **Enhanced Cooling**

Is designed with an extended air handling system for super charging airflow into and out of the attached power modules within the stack. In combination with the air handling capability within each attached UPS, BXM, or AC/DC Converter, this system allows a Powergrid<sup>M</sup> BackPlane Stack to survive in tight shelter rack locations where hot spots and low air flow are common.



## **Enhanced Operational Availability**

The Powergrid<sup>M</sup> BackPlane Stacking System is designed for operational resiliency. Leveraging the Powergrid<sup>M</sup> Load Balancing design, if a unit should fail, the operator is notified via SNMP based network signaling, and the adjacent units load share up to carry the load with no disruption to the attached equipment. By balancing the operational load and the IPMS configuration, both resilient and fully redundant configurations can be achieved.



#### **Ease of Maintenance**

Is designed for tight space-limited environments. The BPM slots are "Hot Swap" allowing for remove and replace activities regardless of operational mode. In addition, Powergrid™ hosts a unique "front access only" design for maintenance. Utilizing a stainless steel slip pin design on the rear bracket connections, UPS, BXM, or DC Inverter units can be removed and replaced (Plug-&-Play) from the front of the stack with no rear access required.



# STACKABLE FROM: **800** watts TO **4000** watts



- 3 to 5 slot configurations (1U each).
- Up to 4000w integrated power support.
- AC/DC Input/Output configurations.
- $1\Phi/2\Phi/3\Phi$  variants available.
- · Consolidated SNMP, EPO, Alarm port.
- "Hot Swap" slots for enhanced Ao.
- AC/DC input with Auto-Sense/Switch.

Powergrid<sup>M</sup> PG-BPM5-24 BackPlane





- 3 to 5 slot configurations (1U each).
- Up to 6000w integrated power support.
- Multi-BackPlane sync ready.
- AC/DC Input/Output configurations.
- 1Φ/2Φ/3Φ variants available.
- Consolidated SNMP, EPO, Alarm port.
- "Hot Swap" slots for enhanced Ao.
- AC/DC input with Auto-Sense/Switch.

Powergrid<sup>M</sup> **PG-BPM5-48** BackPlane

# The First UPS BackPlane Stacking System on the market

Up to 6000 watts Of True Sine Wave Power

# Powergrid<sup>M</sup> Stackable Options

# Powergrid<sup>M</sup> **Product Line**

#### **1U 800 WATTS UPS - STANDALONE STACKABLE TO:** 800 watts | 1600 watts | 2400 watts | 3200 watts

# 1U 800 WATTS UPS – BACKPLANE STACKABLE TO 1600 watts | 2400 watts | 3200 watts | 4000 watts

# **1U 1000 WATTS UPS - STANDALONE STACKABLE TO:**

# 1000 watts | 2000 watts | 3000 watts | 4000 watts

# **1U 1500 VA UPS – STANDALONE STACKABLE TO:** 1500 VA | 3000 VA | 4500 VA | 6000 VA

# 1U 1200 WATTS UPS - STANDALONE STACKABLE TO: 1200 watts | 2400 watts | 3600 watts | 4800 watts

# **1U 1500 VA UPS – BACKPLANE STACKABLE TO:** 1500 VA | 3000 VA | 4500 VA | 6000 VA | 7200 VA

# **1U 1200 WATTS UPS – BACKPLANE STACKABLE TO:** 1200 watts | 2400 watts | 3600 watts | 4800 watts | 6000 watts

#### **2U 3000 VA UPS – STANDALONE STACKABLE TO:** 3000 VA | 6000 VA | 9000 VA

# **2U 2400 WATTS UPS - STACKABLE TO:**

2400 watts | 4800 watts | 7200 watts





FOR MORE INFORMATION VISIT: WWW.POWERGRIDM.COM



- Ruggedized 1U 800 Watts / VA UPS weighing less than 26 Lbs.
- Stack and Interconnect Design for 800/1600/2400/3200 Watts.
- Dual Hot Swap Battery. 3 Lbs Each 9+ Min Hold Time.
- AC/DC Input Power Connections with Auto Sensing Switching.
- Dual Computer Controlled Inverter N+1 Design.
- Over Voltage Capacity for In-Rush and Startup Demands.
- Over Voltage and Over Temperature Protection Circuits.
- SNMP Network Connectivity for Monitoring & Reporting.
- Primary Power Bypass Switch and Audible Power Loss Alarm.
- Lightning Protection with Safety Ground Connection.

Powergrid<sup>M</sup> Standalone 800 watts/VA UPS



- Ruggedized 1U 1000 Watts / VA UPS weighing in at 30 Lbs.
- Stack and Interconnect Design for 1000/2000/3000/4000 w.
- Dual Hot Swap Battery Modules @ 6 lbs 15+ Min Hold Time.
- Field Replaceable AC Input Power Module.
- Universal AC Input of 100-264 VAC and from 47 63, 400 Hz.
- VAC Output Voltage of 120V 60 Hz.
- Dual Computer Controlled Inverter N+1 Design.
- Over Voltage Capacity for In-Rush and Start up Demands.
- Over Voltage and Over Temperature Protection Circuits.
- Audible Power Loss Alarm with Enable/Disable Switch.
- Lightning Protection with Safety Ground Connection.

Powergrid<sup>M</sup> Standalone 1000 watts/VA UPS

# Ruggedized Military Uninterruptible Power Supply Standalone UPS



- Ruggedized 1U 1200w / 1500 VA UPS weighing in at 27 Lbs.
- Stack and Interconnect Design: 1200/2400/3600/4800/6000 w.
- Hot Swap Battery Module @ 6 Lbs Each 12+ Min Hold Time.
- Field Replaceable AC Input Power Module.
- Universal AC Input of 100-264 VAC and from 47-63, 400 Hz.
- 48VDC power input support.
- Computer Controlled Inverter Design.
- SNMP for Monitoring and Reporting (SNMP V3 Optional).
- Over Voltage Capacity for In-Rush and Startup Demands.
- Over Voltage and Over Temperature Protection Circuits.
- Lightning Protection with Safety Ground Connection.

Powergrid<sup>M</sup> Standalone 1500 VA / 1200 watts UPS



- Ruggedized 2U 2400w / 3000 VA UPS weighing in at 50 Lbs.
- Available in 1/2/3 phase input power configurations.
- Stack and Interconnect Design: 2400/4800/7200/9600 watts.
- Hot Swap Battery @ 12 Lbs Each 12+ Min Hold Time.
- AC Input: 100-264 VAC from 47-63, 400 Hz / DC at 42-56 VDC.
- VAC Output Voltage of 120V 60 Hz / 230V 50 Hz.
- Dual Computer Controlled Inverter Design.
- SNMP Based Network for Power Management and Reporting.
- Over Voltage Capacity for In-Rush and Start up Demands.
- Over Voltage and Over Temperature Protection Circuits.
- Lightning Protection with Safety Ground Connection.

Powergrid<sup>M</sup> Standalone 3000 VA / 2400 watts UPS

# The Powergrid<sup>M</sup> Design Represents the First Significant Technical

Advancement in UPS Technology in Over 20 Years.



## Advanced Cold Pak™ Battery Design

Powergrid<sup>M</sup> uses a proprietary **Cold Pak**<sup>TM</sup> design, significantly reducing the overall weight and providing significant advancements in efficiency, reliability, safety, and operational life.



### First Plug-&-Play BackPlane Design

It has been developed to address a wide variety of technical and operational challenges, found in the development of portable shelter and vehicle based C3 systems and environments.



### Intelligent Stacking

BackPlane Stacking System Provides a Complete Mobile Power Solution incorporating a power communications bus allowing multiple inverters to communicate and work together as a single unit.



### Resilient Non-Stop Power Support

By stacking UPS modules in a BackPlane configuration leveraging the Powergrid<sup>M</sup> load balancing design, if a unit should fail, the operator is notified via SNMP based network signaling.



## **Modular Power Service Building Blocks**

Powergrid<sup>M</sup> is comprised of a set of modular common power components that can be configured to meet the requirements of nearly any mobile, deployable, or harsh environment application.



# Load Balancing Capability

The Powergrid<sup>M</sup> engineering team has developed the first Load Balancing Interconnect (LBI) UPS design allowing multiple UPS units to communicate as a single unit.

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## Auto Sensing Auto Switching

If a UPS senses that the AC feed is starting to fail, it automatically recognizes the DC input connection and switches over to the DC source without going to batteries or disrupting output power.



# Global AC DC Input Power Of Choice Capability

Powergrid<sup>M</sup> is unique within the UPS market, which is built to run on "any-power, any-where". A unique feature of Powergrid<sup>M</sup> is its ability to connect with both AC and DC sources at the same time.



#### COTS UNINTERRUPTIBLE POWER SUPPLIES

BUILT FOR TACTICAL, HARSH MILITARY AND INDUSTRIAL ENVIRONMENTS.

#### MIL STD 461 UPS | MIL STD 810 UPS

**EMI / EMC** – Powergrid<sup>M</sup> UPS system has been designed to comply with all the radiated emissions, susceptibility and conductive emissions requirements of the applicable sections of MIL STD 461F. The following is a list of methods used for controlling emissions:

RE102 | CE102 | CS101 | CS114 | CS115 | CS116 | RS103 **DESIGNED TO MEET** 

Environmental MIL-STD-810G: Humidity, Altitude, Sand and Dust, Shock and Vibration, Temperature.



## **SUPPORTING THE TROOPS**

POWERGRID™ A PRODUCT LINE OF AJ'S POWER SOURCE INC.



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